



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,640	01/16/2001	G. Colby Conkwright	37865.010200	2254

22191 7590 03/12/2003

GREENBERG-TRAURIG
1750 TYSONS BOULEVARD, 12TH FLOOR
MCLEAN, VA 22102

EXAMINER

COLBERT, ELLA

ART UNIT	PAPER NUMBER
----------	--------------

3624

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,640

Applicant(s)

CONKWRIGHT ET AL.

Examiner

Ella Colbert

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-23 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-19, 24 and 30-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-23 and 25-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>Z</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 20-23 and 25-29 have been elected for examination in response to the Election/Restriction requirement of 12/10/02 and claims 1-19, 24, and 30-80 have been cancelled without traverse in this communication filed 1/22/02 entered as Election with Extension of Time, paper no. 11.

Specification

2. The Specification is objected to because on page 27, line 4, recites "error functions such as:". This line would be better recited "error function such as:". On page 48, line 8, recites "..., whether are at a bar, a neighbor's home, or their". This line would be better recited "..., whether they are at a bar, a neighbor's home, or their" or "..., whether at a bar, a neighbor's home, or their". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 20 and claims 21-23 that depend on claim 20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The subject matter is: "performing fitting procedures to account for errors in the assumed relationship; and performing fitting procedures which account for errors in the definition of the common

Art Unit: 3624

subsets.” The only references in the Specification that reference “a fit” and “errors” is on page 32, lines 28-30, page 43, lines 13 and 16 that reference “behavior best fits demographics” and “specification percentages may be fit by the weight of their magnitudes”, page 47, line 18 references “... A best fit may be calculated by spot-filling, in which the highest set-top”, page 48, lines 4, 6, 9, and 19 –21 reference in line 4, “... may be best fit to IDM calculation”, line 6 “... This best fit may be”, line 9 “... percentage may be fit to evolutionary specification”, and lines 1-21 “... a linear system that can find a best fit between IDM Calculation Algorithm 270 ... approximated as a best fit of the ...”, and page 51, line 14 “... only a best fit mapping of individual behaviors onto” . However, these references in Applicants’ Specification do not convey to a skilled artisan how to “performing fitting procedures to account for errors ...” and perform fitting procedures which account for errors in the definition of the common subsets” or to understand what “performing fitting procedures” is.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 20 and the claims that depend on claim 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20, the preamble recites “ ... determine rule systems between the sets”, comprising the steps of:”. It is not clear what sets. Do Applicants’ mean “determine rule systems between the datasets”? Do Applicants’ mean data “subsets”? Claim 21 recites “... dynamic data corresponds ...” and claim 22 recites “... static data corresponds”. There

is insufficient antecedent basis for this limitation in these claims. Do Applicants' mean "dynamic dataset corresponds" and "static dataset corresponds"?

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 20-23 and 25-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 20-23 and 25-29 are method claims reciting a series of steps to be performed on a computer. The following is an exemplary analysis of all claims under 35 U.S.C. 101.

Claims 20-23 and 25-29 do not recite any limitation involving independent physical acts (post-computer process activity, such as manipulating an apparatus or a device) or manipulating data representing physical objects or activities to achieve a practical application (pre-computer process activity such as receiving inputs from a sensor or the like). The claimed invention is not limited to a practical application. The claimed invention merely solves a mathematical problem of deriving a proposed correlation of dynamic and static datasets that share a common characteristic having an assumed relationship being expressed as a mathematical assumption and therefore, is directed to non-statutory subject matter and rejected under 35 U.S.C. 101.

The following is an exemplary 35 U.S.C. 101 analysis as applied to claims 20 and 25.

Art Unit: 3624

The steps of “selecting subsets of the datasets ...”, expressing the assumed relationship ...”, defining an error function ...”, “performing fitting procedures to account for errors ...” in claim 20 and the steps of “selecting subsets of the datasets ...”, “expressing the assumed relationship ...”, “defining an error function ...”, performing fitting procedures ...”, “storing such correlations ...”, and iteratively repeating this process” are mere mathematical algorithm steps resulting in an abstract idea. They do not measure physical objects or activities. See EAMINATION GUIDELINES FOR COMPUTER-RELATED INVENTIONS IV.B.2(d)(ii) and are deemed statutory pre-process activities.

Claimed invention processes of a mathematical algorithm on a computer system as recited in steps “selecting subsets of datasets ...”, “expressing the assumed relationship ...”, “defining an error function ...”, and “performing fitting procedures ...”, and “iteratively repeating the process” (claim 25), are mathematical steps of such mathematical algorithm. Similar to claim 20 no practical application of the mathematical process is found in claim 25. To be patentable a mathematical algorithm (i.e. a result thereof) must be applied in a “useful” way to form a practical application. The result of the claimed invention must be applied to produce a useful, concrete, and tangible result. Since the claimed invention lacks such process steps, they merely manipulate an abstract idea without a practical application.

In summary claims 20-23 and 25-29 are analyzed as computer based process claims. All claims are void of any pre-computer or post-computer process activity. There is no practical application recited. The claims merely manipulate an abstract idea

Art Unit: 3624

(e.g. "expressing the assumed relationship", "performing fitting procedures to account for errors", and "iteratively repeating the process", etc.) without limitation to any practical application and therefore are analyzed as non-statutory subject matter under 35 U.S.C. 101 and are rejected as such.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,216,129B1) Eldering in view of (US 6,463,585) Hendricks et al, hereafter Hendricks.

With respect to claims 20 and 25, Eldering teaches, a method of correlating dynamic and static datasets sharing one common characteristic and having an

Art Unit: 3624

assumed relationship, and using such correlations to determine rule systems between the sets, comprising the steps of: selecting subsets of said datasets sharing a common characteristic (col. 8, lines 32-42); expressing the assumed relationship as a mathematical assumption (col. 8, lines 42-53 and col. 9, lines 26-38).

Eldering did not teach, defining an error function which describes the two datasets in terms of said mathematical assumption; performing fitting procedures to account for errors in the assumed relationship; and performing fitting procedures which account for errors in the definition of the common subsets.

Hendricks discloses, defining an error function which describes the two datasets in terms of said mathematical assumption (col. 11, lines 44-50 and col. 36, lines 56-64); performing fitting procedures to account for errors in the assumed relationship (col. 42, lines 29-62); and performing fitting procedures which account for errors in the definition of the common subsets (col. 44, lines 8-65 and col. 45, lines 47-56). It would have been obvious to one having ordinary skill in the art at the time the invention was made to define an error function which describes the two datasets in terms of said mathematical assumption; performing fitting procedures to account for errors in the assumed relationship; and performing fitting procedures which account for errors in the definition of the common subsets and to modify in Eldering because such a modification would allow Eldering to analyze the information and to use an algorithm to perform the mathematical assumption of the datasets.

Art Unit: 3624

With respect to claim 25, Eldering teaches, storing such correlations in and individual-specific array (col. 3, lines 3-28 —shows the correlations and col. 8, lines 1-12 shows the storage).

Eldering did not teach, iteratively repeating this process.

Hendricks discloses, iteratively repeating this process (col. 37, lines 11-67, col. 38, lines 1-66, and col. 39, lines 1-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to iteratively repeat this process and to modify in Eldering because such a modification would allow Eldering to have an algorithm for iteratively repeating the process steps of claim 25. Other algorithms can be used for assigning advertising to groups of set top terminals or to individual terminals other than the algorithm described in col. 37, line 11- col. 38, line 66, and col. 39, lines 1-65.

11. Claims 21-23 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering in view of Hendricks et al, hereafter Hendricks further in view of (Us 5,956,693).

With respect to claims 21 and 26, Eldering teaches, said dynamic data corresponds to set-top box event data (col. 3, lines 6-12, col. 5, lines 9-26, col. 8, lines 1-17, and fig. 1A (106)).

With respect to claims 22 and 27, Eldering teaches, said static data corresponds to demographic data (col. 12, lines 47-54).

Art Unit: 3624

With respect to claim 23, Eldering teaches, correlations are drawn between set-top box event data and demographic to determine the relationship of demographics to content viewership (col. 7, lines 4-67).

With respect to claim 28, Eldering and Hendricks did not teach, individual-specific data corresponds to a set-top box identification number or other privacy-compliant identification number.

Geerlings discloses, individual-specific data corresponds to a set-top box identification number or other privacy-compliant identification number (col. 5, lines 58-67 –shows “customer NR” Number). Eldering teaches, a set-top box identification number and a set-top box in col. 8, lines 13-31 and Fig. 1B (106). Hendricks discloses, a Group Assignment matrix including the set top terminal identifier, Zip code+4 data in col. 13, lines 46-67, col. 14, lines 1-12, and col. 29, lines 6-32. It would have been obvious to one having ordinary skill in the art to have individual-specific data corresponds to a set-top box identification number or other privacy-compliant identification number and to combine Eldering’s set-top box identification number and Hendricks’ Group Assignment matrix including the set top terminal identifier, Zip code+4 data with Geerlings individual-specific data corresponds to a set-top box identification number or other privacy-compliant identification number because such a combination would allow the set-top box to become privacy-compliant by using Eldering, Hendricks, and Geerlings’ privacy-compliant systems.

With respect to claim 29, Eldering, Hendricks, and Geerlings did not teach, an IDM algorithm determines the correlations. However, Hendricks does disclose a

Art Unit: 3624

Category/Group Definition Matrix and a Group Assignment Matrix in col. 31, line 57 to col. 32, line 67, col. 33, 49-67, and col. 34, lines 19-39. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an IDM algorithm to determine the correlations and to modify in Eldering, Hendricks, and Geerlings because such a modification would allow Eldering, Hendricks, and Geerlings to use an inverse matrix algorithm to make a prediction and per sample to update the matrix. Such examples that use an inverse matrix are currency exchange rates, network traffic data from different network elements, demographic data from multiple jurisdictions, patient data varying over time, and so on.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Biliris et al (US 6,055,491) disclosed an inverse matrix algorithm that can be used for determining demographic correlations.

Schiller, Dan disclosed Internet television and the A.C. Nielsen television ratings.

Inquiries

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday from 6:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone numbers

Art Unit: 3624

for the organization where this application or proceeding is assigned are 703-305-7687 for Official communications and 703-746-5622 for Unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



E. Colbert
March 9, 2003



HANI M. KAZIMI
PRIMARY EXAMINER